

Claims

We claim:

1. A tool set for performing work on a sprinkler unit wherein said sprinkler unit comprises an inner tubular housing and an outer casing, wherein the inner tubular housing is detachably secured to the outer casing by a threadably mounted retaining cap; wherein the tool set comprises:

- a) a first tool which engages and can turn the threadably mounted retaining cap; and
- b) a second tool for applying force to the inner tubular housing to resist movement of the inner tubular housing when the retaining cap is turned.

2. The tool set, according to claim 1, wherein the threadably mounted retaining cap comprises at least one notch, and wherein the first tool is a ring comprising at least one tooth for engaging a notch of the threadably mounted retaining cap.

3. The tool set, according to claim 1, wherein the inner tubular housing comprises at least one aperture located at the top of the inner tubular housing, and wherein the second tool is a disc comprising at least one leg for insertion into an aperture located at the top of the inner tubular housing.

4. The tool set, according to claim 1, wherein the inner tubular housing comprises a flange at the bottom of the inner tubular housing that engages at least one vertically aligned fin located within the interior of the outer casing, and wherein the tool set further comprises a device which strengthens the engagement between the flange at the bottom of the inner tubular housing and a fin located within the interior of the outer casing.

5. The tool set, according to claim 1, which further comprises a third tool for removing the outer casing, wherein the outer casing comprises at least one vertically aligned fin located in the interior of the outer casing, wherein said third tool engages a vertically aligned fin such that the outer casing can be turned by turning said tool.

6. The tool set, according to claim 1, wherein said third tool is a grooved cylinder.

7. The tool set according to claim 1, which further comprises a guide shaft for aligning the outer casing on a riser of an irrigation system.

8. The tool set, according to claim 1, which further comprises a fourth tool for purging the irrigation system wherein said fourth tool comprises a purge conduit for directing water away from the sprinkler unit.

9. The tool set, according to claim 8, wherein the purge conduit comprises a valve.

10. A method for removing an inner tubular housing from an outer casing of a pop-up sprinkler unit, wherein the inner tubular housing is detachably secured to the outer casing by a threadably mounted retaining cap, wherein said method comprises:

- a) engaging a first tool to the retaining cap;
- b) engaging a second tool to the top of the inner tubular housing;
- c) rotating the first tool to apply torque to the threadably mounted retaining cap to disengage the retaining cap from the outer casing while simultaneously applying sufficient force on the second tool such that movement of the inner tubular housing is resisted and the outer casing is not removed.

11. The method according to claim 10, wherein the inner tubular housing comprises a flange at the bottom of the inner tubular housing that engages at least one vertically aligned fin located within the interior of the outer casing, said method further comprising inserting a device into the outer casing to strengthen the engagement between the flange at the bottom of the inner tubular housing and a fin located within the interior of the outer casing.

12. The method, according to claim 10, wherein the threadably mounted retaining cap comprises at least one notch, and wherein the first tool is a ring comprising at least one tooth for engaging a notch of the threadably mounted retaining cap.

13. The method, according to claim 10, wherein the inner tubular housing comprises at least one aperture located at the top of the inner tubular housing, and wherein the second tool is a disc comprising at least one leg for insertion through an aperture located at the top of the inner tubular housing.

14. A method for removing an outer casing of a pop-up sprinkler unit from an irrigation system, wherein the outer casing comprises at least one fin located in the interior of the outer casing, wherein the outer casing is attached to a threaded riser connected to an irrigation system, wherein said method comprises:

- a) inserting a tool into the outer casing, wherein the tool engages a fin located in the interior of the outer casing;
- b) rotating the tool to detach the outer casing from the threaded riser.

15. The method, according to claim 14, wherein the tool is a grooved cylinder comprising at least one vertically aligned groove.

16. A method for purging an irrigation system and installing an outer casing of a pop-up sprinkler unit to the irrigation system, wherein the outer casing is connected to a threaded riser of the irrigation system, wherein said method comprises:

- a) attaching to a riser a first tool which directs water away from the sprinkler unit;
- b) turning on the irrigation system to purge the irrigation system;
- c) turning off the irrigation system;
- d) detaching the first tool from the threaded riser; and
- e) attaching the outer casing to the riser.

17. The method, according to claim 16, wherein a guide shaft is inserted into the rise to facilitate locating the outer casing on the riser.

18. The method according to claim 16, further comprising:

- a) inserting an inner tubular housing into the outer casing, wherein detachably seated at the top wall of the inner tubular housing is a threadably mounted retaining cap; and
- b) rotating the threadably mounted retaining cap to attach the threadably mounted retaining cap to the outer casing.

19. The method, according to claim 18, wherein, prior to insertion of the inner tubular housing into the outer casing, a device is placed into the outer casing wherein said device enhances the engagement between the inner tubular housing and the outer casing.